

public interest, of the development of voluntary pre-paid health insurance, of the strides made by medicine in an atmosphere of freedom and professional integrity. Certainly it does not in the least discredit the abilities of other advocates in the same field to say that undoubtedly John Cline has been the foremost proponent, the most effective, in carrying this story to the American people.

An example of his unstinting devotion to this duty can be gained from a review of just one of his travel itineraries last year. In a period of five weeks he went from San Francisco to Denver, Kansas City, St. Louis, Louisville, Memphis, Atlanta, Miami, Washington, Wilmington, New York, Portland, San Francisco, New York, New Haven, New York, San Francisco, Reno, Los Angeles, St. Louis, Pittsburgh, Chicago, Grand Rapids, Chicago, Denver, Rock Springs, Wyoming and thence back to San Francisco.

In carrying out other itineraries of comparable scope, and in spending more than two-thirds of his time away from his own professional office, John Cline has racked up a new record high mileage in

the history of United Air Lines. By the close of his term of office in the A.M.A. he will have traveled more miles in one year than any other passenger in United's history. Next month he will have completed more than 125,000 miles of air travel in one year.

Next month John Cline will lay down his reins in the A.M.A. We know he will still be called upon by that body to lend his talents for the good of medicine, but he will be relieved of his multitudinous and arduous duties as the top elective officer. We will welcome him back to California, his birthplace and his home. We will welcome back in our own ranks his counsel, his capacity and his courage in his convictions. California will gain by his return.

California is proud of having contributed John Cline as a president of the American Medical Association, especially in the trying period in which he has served. For the good of medicine we hope that future A.M.A. presidents will reach and, if they can, surpass the mark that he has left during his tenure. The goal is high but the accomplishments great.



## *Letters to the Editor . . .*

### **Emotional Hyperacidity**

It is currently assumed that the only ways in which the stomach can be stimulated to secrete pepsin and hydrochloric acid are mediated: (a) by way of the vagus nerve, or (b) by direct action of the locally produced hormone, gastrin. Gray<sup>1</sup> and associates of the Peter Bent Brigham Hospital, Boston, Mass., report clinical evidence that there is a third regulating mechanism mediated through the pituitary gland. This evidence was drawn from a quantitative study of the effects of ACTH upon gastric secretion.

The basal gastric secretion was first measured in seven patients with essentially normal stomachs by inserting a Levine tube into the stomach in the morning, following a 10- to 12-hour overnight period of fasting. The stomach was then aspirated for a period of 60 to 90 minutes. The first 15-minute specimen was discarded and then three to five consecutive 15-minute aspirations were obtained by constant suction.

They found that the continuous daily administration of 100 to 160 mg. ACTH resulted in a 241 per cent increase in the basal secretion of hydrochloric acid and a 182 per cent increase in pepsin. A 194

per cent increase in uropepsin excretion was also noted, parallel to the rise in gastric juice pepsin. After discontinuation of ACTH administration, the gastric acidity, pepsin concentration, and uropepsin excretion fell to the pre-ACTH level.

Since oral or parenteral daily administration of 200 to 250 mg. cortisone leads to a similar increase in uropepsin excretion, they believe that the effect of ACTH upon gastric secretion is mediated through the adrenal cortex rather than by direct action upon the stomach. It is well established that in response to emotional or systemic stress the cells of the anterior hypothalamus secrete a humoral substance which stimulates the pituitary gland to release ACTH. From this the Boston clinicians picture their third method of gastric control as a hypothalamus-pituitary-adrenal-stomach hormonal pathway of major clinical interest.

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#### REFERENCE

1. Gray, S. J., Benson, J. A., Jr., and Reifenshtein, R. W.: Effect of ACTH upon gastric secretion, *Proc. Soc. Exp. Biol. and Med.*, 78:338, Oct. 1951.